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| (51) International Patent Classification ⁷ : G06F 17/60 | | A1 | (11) International Publication Number: WO 00/48104 |
| | | | (43) International Publication Date: 17 August 2000 (17.08.00) |
| (21) International Application Number: PCT/US00/03421 | | | (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). |
| (22) International Filing Date: 9 February 2000 (09.02.00) | | | |
| (30) Priority Data: 09/250,039 12 February 1999 (12.02.99) US | | | |
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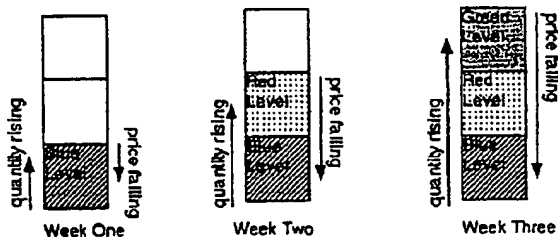
Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: CORRELATED INDIVIDUAL UNIT SALES PRICE REDUCTION BASED ON CUMULATIVE SALES

QuantityDiscount.com



- Blue Level - minimum quantities, entry level pricing
- Red Level - increasing quantities, decreasing pricing
- Green Level - additional quantities, further decreasing pricing

Relationship between purchase price and current price reduction.

(57) Abstract

An interactive website on the Internet posts information regarding products and services, each product or service being offered for sale at an initial offering price with at least one lower alternative sales price, which can become the final sales price, being posted. The applicability of the lower price is contingent upon the confirmation of a specified number of prospective sales for that product or service. Confirmed individual purchase orders are cumulatively totalled over time to effect incremental cost reductions for the entire class of purchasers of a given product or service, or for a group of related products or services. Fulfillment of the confirmed purchase orders is preferably affected from inventory held by the product's manufacturer, a regional distributor of the product or a merchant dealing in the product, thereby further reducing the costs associated with each individual sale.

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Description

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CORRELATED INDIVIDUAL UNIT SALES

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PRICE REDUCTION BASED ON CUMULATIVE SALES

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Field of the Invention

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This invention relates to the sale of goods and/or services through an interactive website on the Internet.

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10 Background of the Invention

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Numerous websites have been established on the Internet for the marketing of a wide variety of products and services. The Internet provides a medium that allows customers, including individual consumers and representatives of small and large entities, to shop conveniently from the home or office, without physically going to a store location. Consumers can shop at any time of the day, have access to a wide variety of products and services, and can purchase items either by browsing or going directly to a specific website for a particular item. Consumers purchasing products over the internet are accustomed to providing credit or debit account information and secure financial systems have been developed to insure the integrity of these financial transactions. The popularity of such on-line shopping is evidenced by the past growth and the future estimates of a significantly larger dollar volume of so-called electronic commerce.

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Internet search engines are available to assist prospective purchasers in locating websites where specific products, or types of products are being offered for

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5 sale. Manufacturers and distributors of various types of products and services have
provided detailed descriptions and specifications at websites which they maintain. In
10 some cases, manufacturers and distributors provide interactive purchase order display
screens that permit customers to order, confirm the availability of, and pay for
5 products via the Internet without any direct contact with the seller's personnel.

15 A number of Internet marketers have succeeded by offering purchasers
standard products, such as books, at a discounted price that is far below discounted
prices offered at traditional book store outlets. Although the Internet marketer's
20 lower price is based on an anticipated large volume of sale for a particular product,
10 the discounted price is fixed and does not vary with actual volume of sales.

25 Although there are obvious benefits to sellers and marketers that employ the
Internet, including manufacturers, regional, national or even international distributors,
as well as local merchants, there is no evidence of a general practice of passing along
30 cost-savings to individual Internet purchasers of the products or services. In fact, it
15 appears that the general approach to the broad category of mail order shopping, of
which electronic or e-mail commerce is but a sub-category, has been to offer goods
35 at what appear to be premium department store prices and to then further enhance the
cost of the goods to the purchaser by addition of shipping and handling charges which
40 can average 15%-20%, or more, of the purchase price for individual items. In most
20 cases, shoppers with access to larger department stores, suburban malls and
manufacturer's outlet or discount shopping centers, home center stores, and the like
45 can obtain products of comparable quality at prices less than those paid for mail
ordered goods. The mail-order catalog fulfillment operation does not incur the costs
50 of retail store leasing, fixture purchase and installation charges, sales personnel, cash

5 registers, security, etc., and can locate its fulfillment/distribution center in relatively
less costly warehouse space, staffed with less-skilled workers. In addition, the mail-
order business can secure volume discounts from national shippers, and the potential
10 avoidance of state and with the avoidance of local sales tax, the cost of getting the
5 goods into the hands of the purchaser should be less than through the normal retail
channels of trade.

15 It is also a common practice to provide purchasers with a discount for volume
purchasing. For example, the purchaser of a container with 250 aspirin tablets pays
but a tiny fraction of the per tablet cost of a package containing 25 aspirin of the
20 same brand. Volume discounts are also granted by manufacturers to regional
10 distributors or to national discount department stores. At present, however, there is
25 no means by which a purchaser, whether an individual or a small business, that is
interested in purchasing one or a few units of a specific item can obtain any special
treatment or secure a discount from the posted purchase price.

30 15 It is therefore a principal object of the invention to provide benefits to
purchasers that exceed those of the traditional marketplace.

35 It is another object of the invention to provide an interactive Internet website
operating system that will afford consumers the opportunity to purchase one of a
variety of products and/or services at a reduced price, or prices, that is based on the
40 20 number of independent sales transactions for the specific product or service.

45 Yet another object of the invention is to provide means for managing and
operating an Internet website that will lease advertising space and time, provide
consumer ordering, billing and acknowledgement services, generate order price

confirmation information and shipping instructions to thereby provide marketers with new opportunities to meet customer needs and generate additional sales.

Summary of the Invention

The above objects and additional advantages will be achieved by the method and apparatus of the invention for operating a website on the Internet at which one or more products and/or services are offered for sale to consumers at an initial or base price and at one or more prospective lower prices that are correlated to or determined by the total number of sales orders for the specific product or service that are received by the seller. The discount, or reduced selling price, can be based on each individual unit sold during a given time period, or can be reduced incrementally as the number of orders received reach specified numerical levels. In order to meet reasonable consumer requirements or expectations for delivery of the product ordered, in a preferred embodiment, the information for the product will include at least one target date in the future or a time limit by which the final selling price of the product will be confirmed to the buyer.

In a preferred embodiment of the invention, the purchaser is provided with at least one option to extend the period of pendency of the order before shipment for the purpose of prospective entry of additional individual purchase orders that will further reduce the final purchase price for the product of interest. It will be understood that the establishment of a first target date or time for determination of the total number of purchase orders and the correlated final sales price will be dependent upon a number of factors, including the total number of items that can be supplied from inventory or produced by the manufacturer. Alternatively, a first, second and

5 additional target dates can be established at the outset so that predetermined, or
"firm" shipping dates can be elected by the purchaser.

10 The method of the invention can also be programmed to operate the system
for the purchase of products at a special daily price if a sufficient number of orders
5 are received, then the product will be sold at the specified lower price. In the
practice of the method of this embodiment, the purchase order can be accepted with
15 the understanding that it will be canceled if the volume of orders is insufficient to
trigger the reduced final sales price and that the product will be shipped without
20 further confirmation and the buyer billed at the end of the day, or other announced
10 sale time.

25 It will also be understood that experienced manufacturers, distributors and/or
marketers will have the additional advantage of being able to estimate volume and
date information that will affect reduction or reductions in the price schedule.
30 Although the seller may choose to provide this information relating to unit sales
15 requirements or volume of sales at the website in connection with the descriptive
information and sales pricing, the seller may choose not to include this in the screen
35 display information. In a preferred embodiment, a graphic display with or without
textual data is provided with the product description.

40 The invention comprehends the establishment of an interactive marketing
20 website on the Internet and the posting to this website of displays of informational
fields describing at least one, but preferably a plurality of products and/or services
45 that are available for sale. In addition to an appropriate pictorial representation of the
product, written specifications, performance characteristics and the like, there is also
50 displayed an initial or current selling price for each product or service. Also posted at the

5 website in association with the product identification information is at least one lower
alternative price and an associated number of prospective sales of the product that
must be concluded in order for the initial or current price to be reduced at the next
10 lower alternative price. Thus, a prospective purchaser or browser who visits the
5 website is provided with information that establishes a direct correlation between the
initial or current offering price for the product and the reduction in the price that will
15 result from the confirmation of a specified number of prospective sales. The
individual purchaser can therefore obtain the benefit of a specified quantity discount
so long as the indicated number of purchase orders are confirmed in the future.

10 In one preferred embodiment of the invention, a time period is also established
during which the required number of purchase orders must be confirmed in order to
25 secure a specified reduction or a lower price. In another preferred embodiment,
incremental increases in the number of confirmed purchase order results in
corresponding incremental decreases in the eventual final sales price of the product
30 or service.

Since most prospective purchasers will require that the product be delivered
35 not later than a specific date in the future, the processing of purchase orders will be
terminated and fixed as of the date specified.

Once the final sales price has been determined, it is entered into a data
40 20 processing system and compared to all confirmed purchase orders. Purchase orders
reflecting a sales price that is greater than the final selling price are sorted, and a
credit for the price difference is transmitted to the purchaser's debit or credit account
45 holder. In a preferred embodiment, a final confirmation of sale is also transmitted
via e-mail, telephone, or facsimile to the purchaser. The final purchase order
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5 confirmation list is also transmitted to the fulfillment center, which may be the product's manufacturer, a regional or national distributor, wholesaler or local merchant.

10 In the event that the number of confirmed purchase orders is not sufficient to effect a reduction in the initial offering price, a notice can be transmitted to the purchaser with an option to rescind the purchase order, or to maintain the order for 15 a further specified period of time. If the purchaser elects to rescind the order, a credit notice is transmitted to the purchaser's debit or credit account holder in the amount of the purchase price previously billed.

20 The apparatus and method of the invention further comprehend according a purchaser of multiple units shipped to the same address a reduction from the pro rata shipping charges for a single unit to the same address; and according discounts to 25 individuals or entities whose names appear on a "membership" list and/or to repeat purchasers, i.e., to those who have completed a prescribed number of previous 30 purchases in a prescribed period of time.

35 Brief Description of the Drawings

The invention will be further described with reference to the attached drawings in which: Fig. 1 is a flow chart of a presently preferred embodiment of the method 40 of the invention; and Figs. 2-5 are schematic illustrations of website screens depicting several aspects of the invention.

Detailed Description of the Invention

The description of the preferred embodiments which follow will include methods illustrated schematically in the flow chart of Fig. 1.

In the practice of the invention, the website operator or product seller will typically allocate a web page or a portion of a page to a product and will typically include a picture of the product and a description which can be in the form of text, audio and/or visual display. In the case of a product having a substantial technical specification that may be of interest to purchasers, the website can provide a hyper link to another website maintained by the manufacturer and/or distributor as part of a catalog of other products as illustrated in Fig. 1. The product descriptive page can also include information on pricing, such as the manufacturer's suggested retail price and prevailing prices at conventional retail and/or discount shopping outlets. Text and graphic or visual displays indicating the base price, target price, target date and current price can also be provided on the same page or on a separate page with the partially completed order form for the product or service. For example, the webpage can include a visual display such as that depicted in Fig. 2 which depicts a series of bar graphs reflecting time and increasing quantities purchased.

If the order form is on a separate page or is to be called up an appropriate instruction or icon is provided to guide the prospective purchaser, and to assist in completing the purchase order form. In addition to providing any necessary prompts to the buyer in order to correctly complete the purchase order, the buyer will be asked to select a target price and/or a target date for confirmation of the sale and fulfillment, and will also be asked to acknowledge the financial terms of the transaction including any non-refundable deposit, handling charges, service fees, and

5 the like that will be billed to a debit or credit account holder. The purchaser will also
be prompted to electronically store or print a record of the purchase order as
10 completed and authorized for future reference in determining any price reductions,
the status of the order and/or its fulfillment upon receipt of the product or service.

5 The website will preferably include information displays relating to the
original or base sales price and the current reduced price, if any, based on orders
15 received. This information is presented in real time so that those who have already
placed purchase orders as well as prospective buyers can see what price reductions
20 have occurred since the product was originally entered at the website and offered for
10 sale. Pricing information can be displayed in any number of graphic forms, including
bar graphs, pie charts, numerical tabulations, or the like. Target price reductions can
25 be correlated to display an estimated date upon which the target price will be reached
based upon the number of units sold; or the estimated final sales price can be
provided as of the target date, where the sale will conclude on a date certain period.

30 15 The system can also advantageously be programmed to provide a real time
graphic display at the website to display the purchase price as it may be reduced by
35 each confirmed purchase order, or to indicate the rate at which orders are being
received to achieve the next incremental price reduction. In either of the above, or
in alternate displays or graphic representations of a dynamic nature, the actual number
40 20 of units sold need not be disclosed, should the seller consider that to be sensitive
competitive information.

45 Although it is contemplated that the invention will be practiced by the
transmission of individual purchase orders directly over the Internet by consumers,
orders can be placed at stores, either directly by the customer or through the
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5 intermediary of a store clerk, at kiosks, or the like, established for the purpose, or
even by telephone. It will be understood that the preferred method of establishing
purchase orders will be via direct Internet connection with the consumer's computer
10 terminal, since that mode eliminates the need for additional personnel and display and
5 order entry apparatus.

15 The method of the invention comprehends and can accommodate a variety of
payment and billing systems. In one preferred embodiment, the prospective buyer
includes information identifying her credit or debit card account with the purchase
order, and a "hold" of the base price or then-current reduced price is entered on the
20 buyer's account. At such time as the final purchase price and order shipment is
confirmed, the "hold" amount is replaced with a charge and fund transfer to the
25 seller's account.

30 In another preferred embodiment, a deposit in a predetermined dollar amount
is charged to the buyer's credit or debit account at the time that the purchase order
15 is processed and confirmed. Depending upon the conditions of the sale, all or part
of the deposit that has been received can be made non-refundable. Establishing a
non-refundable deposit can insure the seriousness of the buyer, and provide an
35 incentive for the buyer to complete the transaction at the target date, as well as
covering some or all of the seller or website operator's expenses and the profit
40 margin on incompleting sales.
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45 It will also be understood that payment can be accepted by check, money
order, or similar instruments from the purchaser, but that the processing of such
"cash" transactions will result in additional overhead charges to the seller and/or
website operator. Additional processing fees can be imposed on such transactions to
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5 cover the additional costs and to encourage purchasers to pay via credit or debit card
accounts through which payment can be processed by computers using existing
technology.

10 Once the purchase order form has been completed by the buyer and the
5 acceptance of the price and terms confirmed by the buyer, the data is processed in
accordance with the computer software program and transferred to various prescribed
15 data storage areas and registries. In one preferred embodiment, the product
transaction is stored in a register that can be accessed by the website operator and/or
20 provider of the product on a real time basis so that sales data can be queried and
10 displayed and/or reported as requested. Alternatively, the computer can be
programmed to provide periodic electronic or printed reports, e.g., daily, weekly,
25 etc., so that the product's manufacturer or distributor can timely determine the
requirements and prescribed manufacturing schedule and/or shipping dates. The
apparatus and method of the invention thus provides a management tool to assist in
30 the efficient planning of inventories, manufacturing, and raw material requirements.
15

The fulfillment of product orders is preferably undertaken by the
35 manufacturer, a national distributor or a regional warehouse facility by means that
are, at least in part, determined by the nature of the product and the most efficient
and/or cost-effective mode of delivery. Existing package delivery services such as
40 20 the U.S. Postal Service, UPS, etc., provide reliable cost-effective service. These
shipping charges, as well as any additional packing and handling charges can be
45 determined at the time of the acceptance of the purchase order, e.g., by calculations
based on the buyer's postal zip code. The system software identifies all purchasers

5 associated with products having a specified target date for fulfillment and/or a target price.

10 In a further preferred embodiment of the invention, the target date, whether a first, second or subsequent date, is the parameter used to initiate the fulfillment process.

15 According to the terms of the sale, the entry by the buyer of the purchase order may complete the transaction, with only the final sales price to be determined based on the total volume of sales within the target date. In that form of transaction, 20 the initial or current sales price at the time the purchase order was entered, has already been held or deducted from the debit or credit account of the buyer, and where the final sales price is lower, a credit transaction is processed to the buyer's 25 account holder.

30 In one embodiment, the sales transaction is contingent upon the buyer's acceptance of a final sales price, and the system transmits a message via e-mail to the 15 buyer requesting confirmation. Alternatively, a message can be transmitted electronically to the buyer's facsimile address and/or via mail, requesting 35 confirmation. Upon receipt of confirmation of the order at the final purchase price, the purchase order is entered on the fulfillment database and appropriate electronic and/or printed instructions are issued to the agency responsible for shipping the 40 product. An acknowledgement can also be transmitted to the buyer with information of the expected shipping date. If no confirmation is received from the buyer within 45 a prescribed period of time, the purchase order information is transferred to a canceled file for storage. If the terms of the transaction require a full or partial

5 refund, an appropriate credit notice is transmitted to the buyer's credit or debit
account holder, and preferably, a notice is also transmitted to the prospective buyer.

10 The method of the invention is based upon the principle that it is less
expensive to purchase items in larger quantities than it is to purchase them
5 individually or in smaller orders. In the method of the invention, there is a direct
correlation between the price of the item and the quantity of items ordered. The
15 success of bulk discount shopping stores attests to the fact that there is a great
demand for this type of price discount. The invention is based on the recognition that
20 the Internet can serve as a practical means to economically offer a unique service to
10 the public by means of specially programmed computers that would otherwise be
impossible to provide. The invention differs from other quantity discount sales
25 methods because it takes full advantage of the Internet's global commerce
environment, allowing many people to take part in a unified purchasing transaction
30 that simultaneously benefits all parties by reducing the purchase price of the product
15 or service. Consumer, wholesaler, manufacturer and regional distributors alike all
stand to profit through the practice of the invention. In the description and examples
35 that follow, the designation *quantitydiscount.com* will be used to identify a website
that exists to create a mutually beneficial commercial environment to all purchasers
in the marketplace based on the principle of quantity discounts.

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Determining the Discount

45 The initial offering price, as well as one or more incremental discount prices,
must be determined for each product or service offered at the website. In some
cases, the website operator may choose to commit to the purchase of a certain volume
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5 of goods with the expectation that they can be sold over a specified period of time at
one or more incrementally discounted prices. Products in this category could include
photographic film, batteries, small appliances, and the like, which are readily
10 available from manufacturers and/or wholesalers in large volume on short notice.

5 Products that are not expendable and/or that are more expensive, such as
power tools, home appliances, jewelry, watches and more expensive gift items which
15 can be expected to require a longer period of time for the accumulation of a
significant number of confirmed purchase orders would preferably be sold in
conjunction with the manufacturer, distributor or wholesaler, which entity can
20 establish the discount schedule and related sales volume, as well as the time period
and delivery schedule. The specific information for each product and/or service is
25 entered into the memory storage device of an appropriately programmed general
purpose computer of the type conventionally employed to support an Internet website
in order to provide product/service inventory information in response to inquiries
30 received from a plurality of individual sources via the Internet. The data processing
software will also include an interactive purchase order display and entry system, a
35 debit or credit account holder billing system and an accounting system. The
implementation and use of commercially available systems to support and practice the
method of the invention is within the skill of a systems and software designer.

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The Marketers' Advantage

45 From a marketing perspective, the use of the method of the invention offers
a significant opportunity to increase sales. At such an enormous potential for
discount, there are incentives for buyers to encourage others to order through the
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Internet from *quantitydiscount.com* to obtain a lower price price. Creating a website where a buyer can go and be virtually guaranteed a discount will draw on consumers' desires to obtain a lower price, increasing web traffic for those value shoppers, while at the same time maintaining customer loyalty to favorite brands of products and services by offering otherwise unobtainable discount are among the objects achieved by the invention.

The advance placement of orders creates a lead time that allows manufacturers and wholesalers to anticipate sales and to offer their products at a greater discount based on volume. In anticipating orders and having immediate access to the status of sales, marketers have a floating sales forecast. They are able to see information simultaneously with the placement of orders, providing a continuing and ongoing status of sales in process. For example, a graphic display such as that shown in Fig. 3 can be displayed to manufacturers or other suppliers by the website operator. By being able to anticipate sales, the overhead that was previously expended to generate such sales is decreased. Marketers can accumulate orders without having to warehouse the goods for indeterminate time periods, thereby creating more efficient channels of distribution. They also have the advantage of determining their own profit margins. The cost of funds is decreased. There is no "float" money. There is less advertising, fewer personnel, less storage and less waste in the overall practice of the method of the invention as compared to existing purchasing systems.

Having a central location where these businesses can be found, and making this location user-friendly and interactive will attract a high volume of consumers with future purchases in mind. Furthermore, the inclusion of a company's product or service on the website will constitute a continuing advertisement which itself will

5 serve as an incentive for businesses to participate in the system. The invention will
serve to create a website for electronic commerce that consumers trust as reliable and
reputable, where new information is added, continually updated, and that offers the
10 best price and quality service at a discount for a wide variety of products and
5 services.

15 The apparatus for the practice of the invention includes one or more
appropriately programmed computers of the type conventionally used for establishing
an Internet website used for electronic commerce. Appropriate software is
20 commercially available for transmitting appropriate purchase order forms receiving
10 the data entered by the prospective purchaser communicating with the purchaser's
credit or debit account holder and confirming the placement in terms of the order.
25 Appropriate network servers, magnetic memory devices and processors are also
commercially available and can be configured to practice the method of the invention
by one of ordinary skill in the art.

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Examples

35 The utility and advantage associated with the invention will be apparent from
the following examples. A prospective purchaser knows that she is going to purchase
a compact disc player for a relative as a gift in the near future. Knowing this fact,
40 the shopper accesses the *qualitydiscount.com* website and locates information
20 describing the particular CD player of interest. The prospective purchaser initiates
the ordering process by clicking on an appropriate icon associated with the product
45 displayed on the screen which calls up a partially completed purchase order form
upon which the remaining information is entered. The order is paid for using a debit
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5 or credit card account number and the buyer is given the option to either provide a date by which the player is to be billed and shipped, or to place a cap on the number of orders to obtain a target discount.

10 From the time the order is placed until the time it is billed and shipped, there will be other shoppers who have also placed orders for the same item. As more
5 orders are placed, the price of the CD player will be reduced in accordance with a predetermined price reduction schedule. Thus, there is a direct correlation between
15 the price reduction and orders received and confirmed. Customers are able to check the status of their order via the Internet whenever they choose merely by accessing
20 the website. As the orders are registered, the data processing system will, when queried, calculate and display the discount, which the shopper can compare to the
25 original retail or initial offering price, thereby determining then-current savings. In accordance with existing interactive telephone systems, a toll-free number can be provided so that customers can determine current price information in response to,
30 e.g., entry of a product and/or purchase order identification number.
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Another class of goods and services for which the invention will satisfy a very
35 practical consumer's need is the purchase of seasonal items, such as gas grills, skis, ski resort passes, and the like. Consumers generally know well in advance that they will be buying such seasonal goods and services. Products are offered and orders are
40 placed early in the year for outdoor gas grills in anticipation of summer barbecues; order periods for winter sports items and services scheduled in advance of winter gift-giving holidays and vacations. An example of an element of a graphic screen display
45 for use in a sale event for a gas barbecue grill is shown in Fig. 5. A similar display can be adapted for use with other products and/or services posted at the website to
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5 rapidly convey information to purchasers. In these instances, purchasers have the
greatest potential for taking advantage of a volume-based discount on commonly
10 purchased seasonal items. The same applies for holiday decorations, snow removal
equipment, leaf blowers, and the like.

5 Another area of interest to a specific class of consumer is that of college
textbooks, and other standardized educational materials. College texts are typically
15 expensive and the publication of new editions creates a high turnover, leaving little
market for used books and few opportunities for discounts. For example, while a
20 student in New Jersey and a student in California could have a need for a new edition
10 of a standard physics text, if each student were to go to a bookstore to purchase the
book on her own, there would be no discount obtainable from the posted retail price.
25 However, if at the release of the syllabus, a student placed an order on the Internet
for the upcoming fall classes, all other students ordering the same book through the
30 discount website practicing the invention will bring the cost of the text down for all
15 of the book's purchasers.

Some examples of consumer service providers that can benefit from the
35 practice of the invention are lawn services, landscaping services, chimney sweeping
services, moving services and routine maintenance services. A customer may
40 purchase ongoing service packages offered at quantity discounts in a particular area.
20 If a purchaser is interested in signing up for installation of television cable service,
that person would sign up for it on the website and obtain a specified discount as the
45 cable company arranged to make the installation on a particular day or during a time
period when it would provide the service for all of the subscribers in that
neighborhood.

5 There is a particular advantage to a business purchaser that can anticipate well
in advance that an item must be ordered and ready by a specific date. Small
businesses or companies with otherwise poor purchasing power and tight budgets can
10 obtain an obvious cost advantage with quantity discounts. For example, the owners
5 of a popular Italian restaurant forecast their sales into the upcoming fiscal year, and
determine that they will be selling 10,000 take-out pizzas. Instead of ordering
15 through a wholesaler, the restaurant purchaser would place its order on the Internet
along with potentially thousands of other pizzeria owners who are also ordering for
the upcoming year and generate a discount via their common need and purchase
20 orders for pizza boxes. Deliveries by the manufacturer is scheduled on a periodic
basis, e.g., quarterly, with monthly payments being made. The benefit of volume
25 buying discounts works for all types of business enterprises, and in many instances
can present smaller companies with an opportunity to "even the playing field" with
their larger competitors.

30 Other classes of purchasers, such as individual municipalities can obtain price
reductions on orders for standard items, e.g., orange safety cones for new
35 construction projects. Stop signs and street lights, concrete and reflective material
can be purchased at a discount when combined with time-based orders from other
municipalities, permitting smaller governmental agencies or units to obtain savings
40 that otherwise could not be negotiated with suppliers.

45 Other examples of types or classes of purchasers that can take advantage of
the method of the invention are hospitals, churches, schools, printers, government
agencies, nurseries, factories, newspapers, malls, agencies, farms, grocery stores,

5 pharmacies, gas stations, airlines, car dealers, painters, construction firms, beauty
parlors and book stores/newsstands.

10 In another embodiment of the method and apparatus of invention, the website
is established to include a registry for suppliers of specialized products or services to
5 fulfill purchase orders in relatively small cells or geographic regions. This
embodiment is conveniently illustrated by the following example which also describes
15 a seasonal product and service that will be of interest in consumers residing in
predetermined geographical areas. In this example, the product and service is the
20 delivery of firewood in a specified unit, i.e., a cord of wood. Various types of
10 wood, e.g., pine, oak, etc., can form subclasses of the product. The economics of
handling and distribution dictate relatively small geographic areas over which a
25 particular supplier can provide the service. The Internet operator therefore solicits
suppliers at its website that will undertake to service a specified area. This
30 information is entered into a supplier's database, along with minimum pricing and
15 volume requirements and capabilities.

35 Fireplace wood can be posted to the website at any time in advance of the
heating season with fulfillment target dates being established in relation to average
temperatures in particular geographic areas. In the event of wide price variations in
40 and among the geographical areas, the market can be subdivided and individual
20 purchase orders processed according to postal zip codes. In this example, large
volumes of orders that an individual local business might not be in a position to
45 supply can be satisfied by truckload deliveries of the required product to the local
distributor based upon advance orders. As will be appreciated by one familiar with

5 this particular type of business, no current basis exists for this level of accuracy in
determining the quantity requirements for a consumable product such as firewood.

10 It will also be understood from this example that an individual purchase order
that includes multiple cords of wood delivered to a single address can be accorded a
5 further discount from the shipping or delivery charges, which will have the effect of
lowering the overall unit price for each cord of wood.

15 Another example of the practice of the invention which will provide benefits
and advantages not only to individual purchasers, but to the provider of the product
and service is the delivery of one or more gifts for a specific holiday occasion that
20 is chosen from a selection of traditional gifts. Valentine's Day is reported to be the
single largest occasion for the giving of roses. Because of the perishable nature of
25 this product, and the fact that buyers want the product delivered on the same day,
premium prices for the product and the delivery service are the rule. By employing
the method of the invention, individual orders can be placed well in advance of the
30 February 14th holiday and nationwide orders received at a single location can be
continuously sorted and allocated to regional and local flower distributors and delivery
35 services in order to obtain efficiencies of scale and in the planning of deliveries which
obviously require considerable coordination. Also, since the final purchase price will
likely be determined well before the holiday, the final confirmation from the buyer
40 20 can be obtained and the distribution and delivery schedule can be completed in a
particularly orderly fashion well before the holiday period. Shown in Fig. 4 is a
45 graphic data display used for correlating the incremental price reductions and reduced
prices based upon the quantity of the orders received over time.

5 The method and apparatus of the invention is also especially suited for the sale
of less expensive consumer items such as batteries and photographic film under the
terms of a sale transaction that has a very short duration. For example, the sale
10 period can be one day -- or it can be measured in hours or even minutes -- with
5 fulfillment shipments being undertaken during the night or the following day. In
accordance with a preferred method, the price at the beginning of the day is reduced
15 incrementally as new purchase orders are received and the reductions in price are
posted in ten cent, five cent, or even one cent increments. In the sale of products
20 having a nominal value, such as batteries, film and the like, no subsequent
10 confirmation of the order at the final purchase price will be required and all
information will be held until the end of the day or other shortened buying period,
25 to determine the final price; thereafter all orders for that day are batch-processed and
billed to the individual buyer's credit or debit card holder's account.

30 Another preferred embodiment of the apparatus and method of the invention
15 includes the establishment of a "preferred purchaser" data list in a memory device.
One form of preferred purchase list is a membership list in which members are
35 identified either by their names or, preferably, by an identification number such as
an individual's social security number or a legal entity's federal tax identification
number or EIN. In the practice of this embodiment, the website can display a
40 different lower price or percentage of price reduction that will be afforded to
20 preferred purchasers who are members. Many discount retailers have established
membership fees and require all purchasers to identify themselves by displaying a
45 membership card, which membership can only be maintained by payment of an
annual fee; non-members are not allowed to make purchases. Unlike the existing
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5 practice in the discount retail store, the method of the invention comprehends the
acceptance of purchase orders from members and non-members alike, with members
being afforded a lower price. In the practice of the invention, the purchase order
10 includes a data entry position relating to membership status, which is verified by
5 comparing the purchase order data with a membership list maintained in a data
storage register. If membership is verified successfully, this status is maintained in
15 the purchase order data file and at the time of confirmation and/or final billing the
lower member's price is identified for billing.

20 In yet another preferred embodiment of the invention, a database is maintained
10 of the names and/or identification numbers associated with purchase transactions that
were completed in a past period of time. When purchaser identification data from a
25 new purchase order is received by the website server, it is compared to the database
of prior purchasers during the prescribed past period of time, e.g., twelve months.
The system is programmed to display a current purchase price to a particular
30 "preferred purchaser" that may be lower than the then-current general posted
15 purchase price that appears at the web site, the lower price being based upon the
number and/or dollar volume of previous completed purchases by the particular
35 purchaser within the prescribed time period. In the practice of this embodiment, the
frequent purchaser is provided with an additional incentive in the form of a further
40 discounted price afforded to preferred purchaser. This method can be applied to the
20 embodiment where membership status affords the purchaser with a lower current
price, whereby the member who is also a frequent purchaser receives a greater
45 reduction in the final price than a non-member or another member who does not meet
the prescribed requirements of a frequent purchaser.

Claims

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I claim:

1. A method of offering a product or service for sale over the Internet at a sales price to an individual purchaser of the product or service that is variable in response to total sales of the product or service by all purchasers of that product or service, the method comprising:

a. providing an interactive marketing website on the Internet supported by computer processor means for processing data transmitted by visitors to the website and by data storage means associated with the processor means;

b. entering data in the data storage means that includes descriptive information for one or more products and/or services which data can be displayed as a product informational field;

c. displaying an informational field describing at least one product or service that is available for purchase by visitors to the website;

d. displaying initial current sale price information for the at least one product or service;

e. establishing at least one first alternative price that is lower than the current price and an associated number of prospective sales that must be completed to effect a sale at the first alternative price;

f. displaying the at least one first alternative price and displaying a graphic representation of the associated number of prospective sales of the at least

5 one product or service that must be concluded in order for the at least one product
or service to be sold for the at least one first alternative lower price;

25 g. recording and processing purchase order data transmitted by
10 visitors to the website that are purchasers of the at least one product or service;

h. processing the purchase order data to maintain a cumulative
15 total of actual sales for each of the at least one product or service;

30 i. comparing the cumulative total of actual sales of the at least one
product or service with the associated number of prospective sales for the at least one
20 product or service; and

j. changing the current price information displayed for the at least
25 one product or service to the first alternative lower price if the number of actual sales
equals the associated number of prospective sales.

2. The method of claim 1 which further comprises the steps of:

30 k. displaying at least one second alternative price that is lower than
the first alternative price and displaying a graphic representation of second
associated prospective number of sales of the at least one product or service that
35 must be concluded in order for the at least one product or service to be sold at the
second alternative lower price.

3. The method of claim 2 which comprises the further steps of:

40 l. displaying a subsequent alternative price that is lower than the
current price and displaying a graphic representation of a subsequent associated
45 number of sales of the at least one product or service that must be concluded in order
for the at least one product or service to be sold for the subsequent alternative lower
price; and

m. repeating steps h, i and l;

4. The method of claim 1 that comprises the further steps of:

displaying a specified period of time during which the at least one product or service will be offered for sale;

terminating the processing of purchase order data in step h at the end of the specified period of time; and

transmitting to the purchasers confirmation of the purchase orders at a final sales price of the at least one product or service where the final sales price corresponds to the current price displayed at the end of the specified period of time.

5. The method of claim 1 which comprises the further steps of displaying a purchaser order data entry screen to visitors who indicate their status as prospective purchasers.

6. The method of claim 5 where the purchase order data includes data identifying a credit or debit account and account holder of the prospective purchaser and in which the processing of step h further comprises:

transmitting purchaser order data to the prospective purchaser's credit or debit account holder;

receiving and processing account status data received from the prospective purchaser's account holder;

displaying either a purchaser order confirmation screen or a transaction termination screen to the prospective purchaser.

7. The method of claim 6 which further comprises:

5 transmitting to the prospective purchaser's credit or debit account
holder a billing confirmation for all or a portion of the current price for the at least
one product or service included in the purchase order data;

10 transmitting at a later time to the credit or debit account holder an
account transaction credit in an amount representing the difference between the
current price at the time the purchase order data was processed and the subsequent
15 lower final sales price.

8. The method of claim 1 which further comprises the steps of:
20 transmitting completed purchase order data to a fulfillment distribution
point.

9. The method of claim 8 where the fulfillment distribution point is a
25 manufacturer of the at least one product purchased.

10. The method of claim 8 where the fulfillment distribution point is a
30 regional distributor of the at least one product purchased.

11. The method of claim 4 where the specified period of time is at least
one month.

35 12. The method of claim 11 where the specified period of time is at least
three months.

40 13. The method of claim 4 which comprises the further steps of:
transmitting to the purchaser of the at least one product or service at
a final sales price that is the same as the initial current price an optional sales
45 cancellation notice;

receiving, recording and processing data from the purchaser that
cancels the purchase order; and

5 transmitting to the purchaser's debit or credit account holder an account
transaction credit in the amount of the initial current price for the at least one product
or service in response to receipt of the sales cancellation data from the purchaser.

10 14. A method of marketing and selling a product or service by way of the
Internet where the sales price of the product or service to each purchaser is
incrementally reduced from an initial offering price to a lower final offering price in
15 response to the total sales to all purchasers of the product or service, the method
comprising:

20 a. posting a product or service identification informational display
at an interactive marketing website on the Internet, where the identification
information displayed includes an initial offering sales price, at least one alternative
25 sales price that is less than the initial offering sales price, and a graphic display
corresponding to the prospective number of units that must be sold through the
website so that all sales will be concluded at the lower at least one alternative sales
30 price;

b. periodically posting to the website an informational graphic
35 display corresponding to the total number of confirmed product orders received for
a product or service; and

40 c. reducing the sales price for all purchasers of the product or
service when orders for the prospective number of units are received.

45 15. The method of claim 14 where the prospective number of units that
must be sold is one.

5 16. The method of claim 15 where a plurality of alternative sales prices
are posted and the incremental differences between the alternative sale prices are
directly proportional to the number of units sold.

10 17. The method of claim 14 where the product or service identification
information display includes a purchasing event start time for the receipt of orders
from prospective purchasers of a product or service and a completion time after
15 which orders will not be accepted, which method includes the further step of
displaying on the website the time remaining for the purchasing event in association
with the product or service.

20 18. The method of claim 14 which comprises:

 providing a dedicated terminal that includes data transmission and
25 display means, said terminal having direct Internet access to the interactive marketing
website;

 receiving a purchase order from a prospective purchaser via the
30 dedicated terminal;

 processing the purchaser order; and

35 transmitting a purchase order confirmation acceptance notice to the
prospective purchaser.

40 19. An improved data processing system for administering an interactive
marketing website on the Internet, where one or more products and/or services are
offered for sale to purchasers based on identifying informational postings on the
45 website during a sale event and sale transactions are completed on the basis of
5 electronic purchase order data transmitted by the purchaser to the website, where the
system improvement comprises:

5 means for posting an initial current sales price for each of the one or
more products and/or services offered for sale;

10 means for posting at least one alternative sales price that is lower than
the initial current sales price for each of the one or more products and/or services
5 offered for sale;

15 means for storing data corresponding to a predetermined prospective
sales number of each of the one or more products and/or services offered that must
be sold to effect a change in the posted initial current sales price to each of the posted
20 at least one alternative sales price;

10 means for comparing the number of purchase orders received for each
of the one or more products and/or services offered to the predetermined prospective
25 sales number of each of the one or more products and/or services offered;

30 means for identifying the lower alternative sales price as the current
sales price on the informational posting when the number of purchase orders received
15 corresponds to the predetermined prospective sales number for each of the one or
more products and/or services offered.

35 20. The data processing system of claim 19 which further comprises:

means for defining a final sale price event for each of the one or more
40 products and/or services offered; and

means for terminating the processing of purchase order data after the
occurrence of the event.

45 21. The data processing system of claim 20 where the final sale price event
is a predetermined data and time that is after the date and time of the informational

5 posting on the website of the identification for each of the respective one or more
products and/or services offered for sale.

10 22. The data processing system of claim 20 where the final sale price event
is the receipt of purchase orders for a predetermined number of the product or
service.

15 23. The system of claim 19 which further comprises:
providing data storage means containing preferred purchaser
identification data;

20 means for comparing purchaser identification data derived from the
purchase order received during the sale event with the preferred purchaser
identification data to determine whether a match exists;

25 means for transmitting a price for display to the preferred purchaser
that is lower than the currently posted sales price posted at the website when a match
exists.

30 24. The system of claim 23 where the preferred purchaser identification
data is a membership list of entities that have paid dues during a prescribed period
of time.

35 25. The system of claim 23 where the preferred purchaser identification
data is a list of purchasers who have previously completed sales transactions in a
predetermined period of time.

40 26. The system of claim 23 where the preferred purchaser identification
data comprises associated purchase data for each purchaser for a predetermined period
of time.

Figure 1
Flow Chart

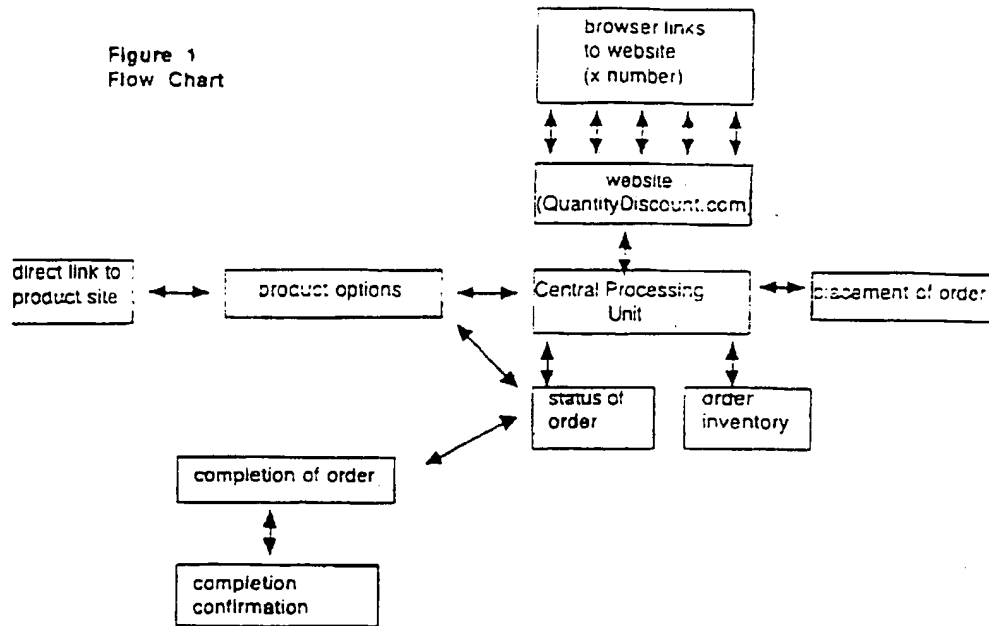


FIG. 1

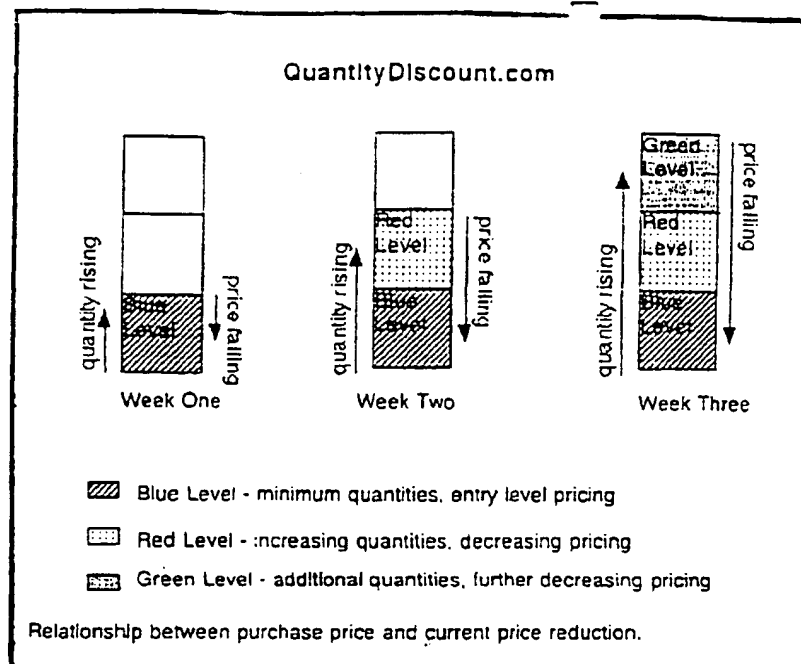
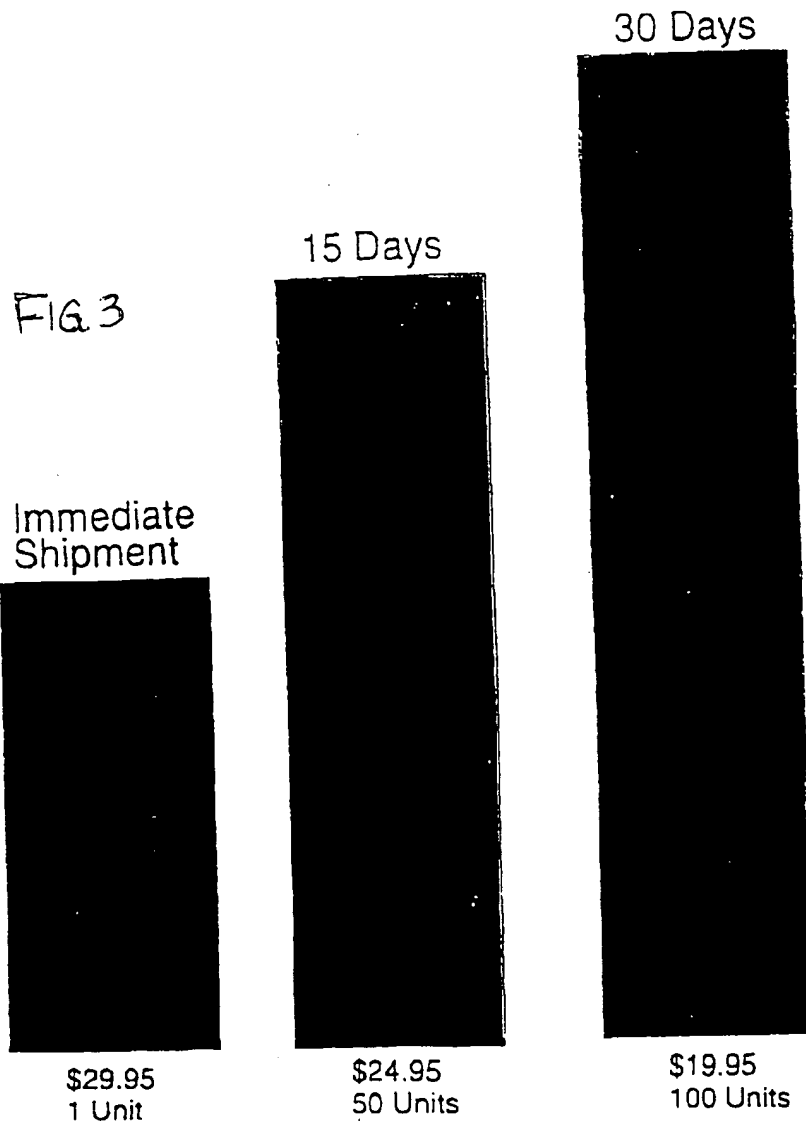


FIG. 2

Quantity Discount. com



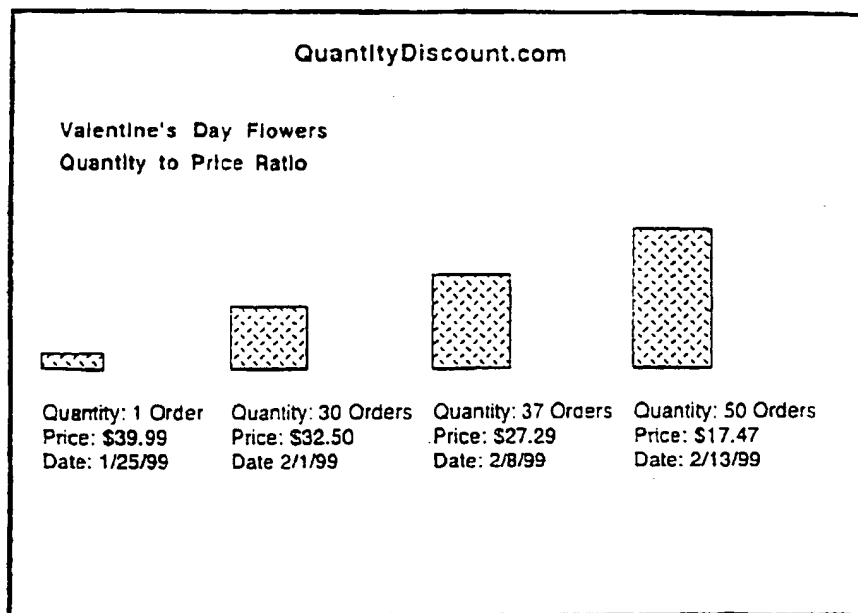


FIG. 4

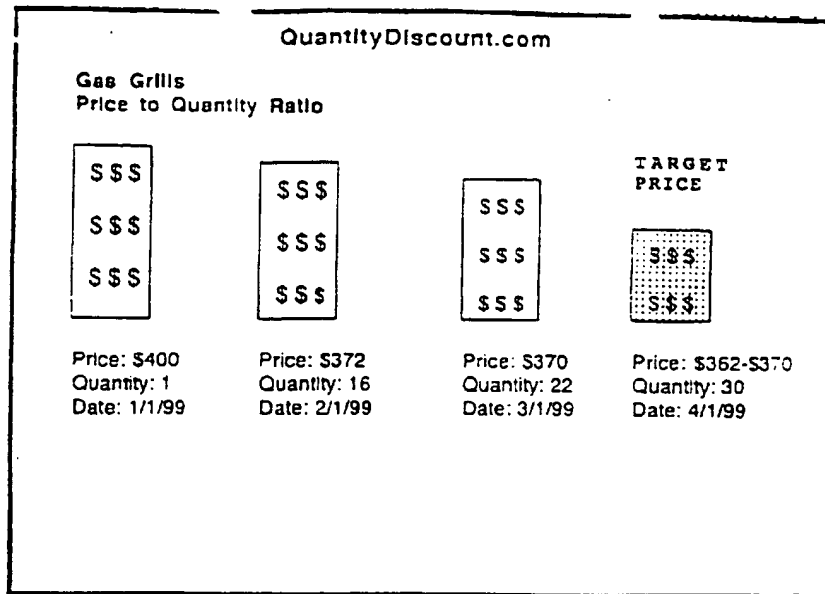


FIG. 5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/03421

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

US CL : 705/27

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/1,14,26,27,44; 709/224

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN, EAST, DIALOG, DRLINK

search terms: electronic commerce, seller, buyer, referral, electronic shopping, network, Internet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| Y | US 5,794,207 A (WALKER et al.) 11 August 1998, col. 8, lines 28-67; col. 9, lines 1-67, col. 10, lines 18-22; col. 14, lines 30-52; col. 19, lines 61-67; col. 20, lines 1-67 | 1-26 |
| Y,P | US 5,913,210 A (CALL) 15 June 1999, col. 3, lines 42-58; col. 12, lines 1-27 | 1-26 |
| Y | US 5,799,284 A (BOURQUIN) 25 August 1998, Abstract; col. 2, lines 60-67; col. 3, line 67; col. 4, lines 1-6 | 1-26 |
| Y,P | US 5,890,137 A (KOREEDA) 30 March 1999, col. 2, lines 30-56. | 1-26 |
| Y | US 5,727,165 A (ORDISH et al.) 10 March 1998, col. 4, lines 63-66 | 1-26 |

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

| | |
|---|--|
| * Special categories of cited documents: | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
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| *B* earlier document published on or after the international filing date | *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | |
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| *P* document published prior to the international filing date but later than the priority date claimed | *A* document member of the same patent family |

Date of the actual completion of the international search

07 JUNE 2000

Date of mailing of the international search report

11 JUL 2000

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/03421

| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|---|--|-----------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y | Christmas Wishes 1991. Current Catalog. 1991. pg. 1-3 and A | 1-26 |
| Y | About ONSALE. ONSALE. 1996. pg. 1-2. | 1-26 |
| Y | ONSALE Home. ONSALE. 08 September 1997. pg. 1-4. | 1-26 |
| Y | US 5,835,896 A (FISHER et al.) 10 November 1998, fig. 12, [94, 97-98, 155]; fig. 14, [181, 183-185]; col. 2, lines 20-33 | 1-26 |